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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,211	12/16/2004	Carl L. Christensen	PU020299	5249
7590 Joseph S Tripoli Thomson Licensing Inc PO Box 5312 Princeton, NJ 08543-5312			EXAMINER RUTKOWSKI, JEFFREY M	
			ART UNIT 2473	PAPER NUMBER
			MAIL DATE 06/22/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/518,211

**Applicant(s)**

CHRISTENSEN ET AL.

**Examiner**

JEFFREY M. RUTKOWSKI

**Art Unit**

2473

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/28/2010 has been entered.

2.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-11** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "wherein the linearly expandable router is expandable [ability to be expanded] by..." renders the claims indefinite because it is not clear if the additional routing engine is or is not required by the claim. The Examiner suggests changing the word "expandable" to "expanded".

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 4, 7-8 and 10-11** are rejected under 35 U.S.C. 102(c) as being anticipated by Langhammer (US Pat 6,781,408).

7. For **claim 1**, Langhammer discloses *a first routing engine (input circuitry 135) having input and output sides; a second routing engine (input circuitry 135) having input and output sides; a third routing engine (input circuitry 135) having input and output sides* (figure 5c shows the input circuitry 135 has input and output sides. The input circuitry 135 is the same as a routing engine because the input circuitry has routing and selecting logic; see figure 5c); *wherein data flows in to the input sides of the first, second, and third routing engines and data flows out from the output sides of the first, second, and third routing engines* (figure 5c shows data flows into the top and left side of the input circuitry 135 and out the right and bottom sides of the input circuitry 135); *a first link, said first link coupling said input side of said first routing engine to said input side of said second routing engine; a second link, said second link coupling said input side of said first routing engine to said input side of said third routing engine; and a third link, said third link coupling said input side of said second routing engine to said input side of said third routing engine* (figure 6 shows there are links that contain programmable logic connectors 651a/b that are used to interconnect the inputs of the input circuitry 135 via general interconnection resources 120; see figures 5c and 6); *wherein the linearly expendable router is expendable by adding an additional routing engine (input circuitry 135) having an input and output sides and by linking the input side of the additional routing engine to the input sides of the first, second, and third routing engines* (this capability is anticipated by Langhammer because

figures 5c and 6 shows that additional input circuitry **135** is added simply by placing it on the general interconnection resources **120**).

8. For **claims 4 and 11**, Langhammer discloses *providing a fourth router having input and output sides* (figure 5c shows there can be any number of function specific blocks **130**); *coupling, using a fourth discrete link* (links that have programmable logic connectors **651a/b**), *said input side of said first router to said input side of said fourth router*; *coupling, using a fifth discrete link, said input side of said second router to said input side of said fourth router*; and *coupling, using a sixth discrete link, said input side of said third router to said input side of said fourth router* (figure 6 shows there are discrete links made up of programmable logic connectors **651a/b** that interconnect the inputs).

9. For **claims 7 and 10**, Langhammer discloses *at least three broadcast router components* (function specific blocks **130**), *each of said at least three broadcast router components* (function specific blocks **130**) *is a discrete router* (figure 5c shows that the function specific blocks **130** are discrete components that have routing logic) *having an input side and an output side* (figure 5c shows there are input and output sides of each function specific block **130**) *and including a routing engine* (input circuitry **135**) *coupled between said input and output sides* (figure 5c shows the input circuitry **135** is internal to each function specific block **130**); *and means for coupling* (general interconnection resources **120**; see figures 5c and 6) *said at least three broadcast router components wherein said input side of each of said broadcast router component is connected, by a discrete link* (links that have programmable logic connectors **651a/b**), *to each and every one of the other said input sides of said broadcast router components* (figure 6 shows there are discrete links made up of programmable logic connectors **651a/b** that

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interconnect the inputs) wherein data flows in to the input sides of the first, second, and third broadcast router components and data flows out from the output sides of the first second, and third broadcast router components (figure 5c shows data flows into the top and left side of the input circuitry 135 and out the right and bottom sides of the input circuitry 135); and wherein the linearly expendable router is expandable by adding an additional broadcast router component having an input and output sides and by linking the input side of the additional broadcast router component to the input sides of the first, second, and third broadcast router components (this capability is anticipated by Langhammer because figures 5c and 6 shows that additional input circuitry 135 is added simply by placing it on the general interconnection resources 120).

10. For **claim 8**, Langhammer discloses wherein said input side of each of said at least three broadcast router components has  $N$  inputs and said output side of each of said at least three broadcast router components has  $M$  outputs (figures 5c and 6 shows that each function specific block 130 has  $N$  inputs and a different number of  $M$  outputs, namely  $2N$  outputs).

***Allowable Subject Matter***

11. **Claims 2-3, 5-6 and 9** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: **claims 2-3, 5-6 and 9** require a particular switching arrangement. A prima facie case of obviousness cannot be established by combining Langhammer with the previously cited art that was used to reject **claims 2-3, 5-6 and 9** because modifying Langhammer with the cited prior art would require major modifications to Langhammer.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY M. RUTKOWSKI whose telephone number is (571)270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey M Rutkowski/  
Examiner, Art Unit 2473

/KWANG B. YAO/  
Supervisory Patent Examiner, Art Unit 2473